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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHAH, NILESH R

ART UNIT	PAPER NUMBER
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2195

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/553,971

Applicant(s)

ALLAVARPU ET AL.

Examiner

Nilesh Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-38 are presented for examination.
2. Claims 1-38 are objected to because of the following informalities: Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “thread” in claims 1- 38 is used by the claim to mean “a queue”, while the accepted meaning is “a process that is part of a larger process or program”. The term is indefinite because the specification does not clearly redefine the term. In claims 12-13 the requests recited are queues which are being held by pending requests from schedulers. The thread recited in claim 1 is the same as the queue recited in claims 12-13. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
4. Claims 1-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The following terms lack antecedent basics:

- i. The “manager application” claim 15.
- ii. The “resources” claims 6.

b. The following claim language is not clearly define:

- i. As per claim 1, lines 5-6, it is unclear what “thread-safe manner” is (i.e. it is a secure communications method, a method of transporting threads which only certain threads use?); line 6, it is unclear which requests are being sent to the primary scheduler, (i.e. all the requests or just a selective number, do all the requests go to the primary scheduler and then to the secondary scheduler?); line 2-3, it is unclear how the secondary scheduler would access the networked data resource (i.e. do all requests have to go through the primary scheduler, does the secondary scheduler have network data resources available?). Claims 15 and 27 have similar problems.
- ii. As per claim 6, line 1, it is unclear which resources are being used (i.e. the networked data resources or new resources?); line 2, it is unclear which requests are being sent, (i.e. requests from the primary or secondary scheduler?).
- iii. As per claim 7, line 4, it is unclear which requests are being sent, (i.e. the request in claim 1 line 2 or the request from the secondary scheduler in

line 6?).

- iv. As per claims 15 and 27, line 1-2 and 11, it is unclear whether the managed objects (lines 11) are the same managed objects on a network (lines 1-2); line 8, it is unclear what the determining process is as to which management requests to send to the primary scheduler (i.e. do all the management requests go to the primary scheduler or just some); lines 11-12, it is unclear how the primary schedule can access the managed objects (i.e. there is no connection between them).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimmel et al (6,105,053) (hereinafter Kimmel) and further in view of Maresco (6,418,458).
7. As per claim 1 Kimmel teaches scheduler system comprising: a primary scheduler which is executable to schedule requests for networked data resources (col. 24 lines 14-26; col. 6 lines 43-65); and

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a secondary scheduler, wherein the secondary scheduler is executable to receive a plurality of requests from a multi-threaded application and send the requests to the primary scheduler (col. 8 lines 24-32; col. 9 lines 9-37; col. 10 lines 50-65; col. 12 lines 56-65).

8. Kimmel does not specifically teach the use of a thread safe system. Maresco teaches a thread safe system (col. 2 lines 30- 38).
9. It would have been obvious to one skill in the art at the time of the invention to combine the teachings of Kimmel and Maresco because Maresco's thread safe system would ensure that Kimmel's system would be secure and accurate.
10. As per claim 2, Kimmel teaches a system, wherein the primary scheduler is single-threaded (col. 5 lines 50-56; col. 24 lines 14-26).
11. As per claim 3, Kimmel teaches a system, wherein the secondary scheduler is multi-threaded (col. 5 lines 50-56; col. 24 lines 14-26).
12. As per claim 4, Kimmel teaches a system wherein the secondary scheduler is executable to receive the plurality of requests (col. 11 lines 5- 30, fig. 8 element 144a).

Maresco teaches a thread safe system (col. 2 lines 30- 38, col. 6 lines 15-19).

13. As per claim 5, Kimmel teaches a system wherein the primary scheduler is executable to receive the plurality of requests from the secondary scheduler (col. 24 lines 14-26; col. 6 lines 43-65).
14. As per claim 6, Kimmel teaches a system wherein the resources comprise a management information server (col. 8 lines 45-50).
15. As per claim 7, Kimmel teaches a system further comprising: a management information server coupled to the primary scheduler through a management interface, wherein the primary scheduler is operable to send the requests to one or more managed objects through the management information server (col. 8 lines 24-32; col. 9 lines 9-37; col. 10 lines 50-65; col. 12 lines 56-65).
16. As per claim 8, Maresco teaches a system wherein the managed objects comprise one or more objects corresponding to a telephone network (col. 2 lines 60-67).
17. As per claim 9, Maresco teaches a system wherein the managed objects comprise one or more objects corresponding to a telecommunication device (col. 2 lines 60-67).
18. As per claim 10, Maresco teaches a management interface comprises Portable management interface, wherein PMI is a single thread, and wherein PMI comprises a plurality of functions, which are operable to carry out the requests (col. 2 lines 53-67).

19. As per claim 11, Maresco teaches wherein the requests comprise callback functions, and wherein the callback functions are executable to send responses to the requests to the multi-threaded application (col. 3 lines 37-48).
20. As per claim 12, Kimmel teaches a system wherein the primary scheduler comprises a primary queue, which is operable to hold pending requests and responses to the requests (col. 10 lines 8-33; col. 25 lines 25-37).
21. As per claim 13, Kimmel teaches a system wherein the secondary scheduler comprises a secondary queue which is operable to hold pending requests (col. 10 lines 8-33; col. 25 lines 25-37).
22. As per claim 14, Kimmel teaches a system further comprising:
a communication pipe between the primary scheduler and secondary scheduler, wherein the secondary scheduler uses the communication pipe to wake the primary scheduler prior to sending one of the requests to the primary scheduler (col. 8 lines 24-32; col. 9 lines 9-37; col. 10 lines 50-65; col. 12 lines 56-65).
23. As per claim 15, Kimmel teaches a method for using a management interface for management of a plurality of managed objects on a network, the method comprising:

scheduling the plurality of management requests in a secondary queue in the secondary scheduler after receiving the management requests from the manager application (col. 8 lines 24-32; col. 9 lines 9-37; col. 10 lines 50-65; col. 12 lines 56-65);

scheduling the management requests in a primary queue in the primary scheduler (col. 24 lines 14-26; col. 6 lines 43-65); and

executing the management requests on the managed objects after scheduling the management requests in the primary queue (col. 6 lines 62-67).

Maresco teaches a thread safe system (col. 2 lines 30- 38, col. 6 lines 15-19).

24. As per claim 16 Kimmel teaches executing the management requests on the managed objects further comprises sending the management requests to a management information server coupled to the managed objects (col. 12 lines 7-15; col. 11 lines 23-40).

25. As per claim 17, Maresco teaches a method wherein each of the management requests comprises a corresponding callback function (col. 3 lines 37-48).

26. As per claim 18 Kimmel teaches a method further comprising:

receiving a response to one of the management requests from one of the managed objects after executing that management requests on one of the managed objects (col. 8 lines 24-32; col. 9 lines 9-37; col. 10 lines 50-65; col. 12 lines 56-65);

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executing the corresponding callback function for that management request (col. 9 lines 9-37; col. 10 lines 50-65; col. 12 lines 56-65).

Maresco teaches a thread safe system (col. 2 lines 30- 38, col. 6 lines 15-19).

27. As per claim 19, Kimmel teaches a method further comprising:

enqueueing the response in the primary queue after receiving the response from one of the managed objects (col. 8 lines 24-32; col. 9 lines 9-37); and
dequeueing the response from the primary queue before executing the corresponding callback function to send the response (col. 24 lines 14-26; col. 6 lines 43-65).

Maresco teaches a thread safe system (col. 2 lines 30- 38, col. 6 lines 15-19).

28. Claim 20 is rejected based on the same rejection for claim 10 above.

29. Claims 21-22 are rejected based on the same rejections for claims 8-9 above.

30. As per claim 23, Kimmel teaches a method wherein the receiving the plurality of management requests from the manager application into the secondary scheduler in the manner comprises receiving the plurality of management requests (col. 8 lines 24-32; col. 9 lines 9-37; col. 10 lines 50-65; col. 12 lines 56-65).

31. As per claim 24 Kimmel teaches a method, wherein sending the management requests to the primary scheduler comprises dispatching the management requests col. 10 lines 50-65; col. 12 lines 56-65).
32. As per claim 25 Kimmel teaches a method wherein the primary scheduler is executed in a single thread associated with the management interface, and wherein the secondary scheduler is executed in at least one different thread (col. 24 lines 28-57).
33. As per claim 26 Kimmel teaches a method, wherein the secondary scheduler is multi-threaded (col. 5 lines 55-58; col. 24 lines 14-24).
34. Claim 27-32, 35- 38 are rejected based on the same rejections as claims 15- 20, 23-26 respectfully.
35. Claims 33-34 are rejected based on the same rejections as claims 8-9 above.

Conclusion

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nilesh Shah whose telephone number is (571)272-3771. The examiner can normally be reached on 9-5.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nilesh Shah
Examiner
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NS
March 31, 2005


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